

Appl. No. 09/987,164  
Amdt. Dated September 12, 2005  
Reply to Office action of July 13, 2005

REMARKS

A total of 16 claims remain in the present application. The foregoing amendments are presented in response to the Office Action mailed July 13, 2005, wherefore reconsideration of this application is requested.

By way of the above-noted amendments, claim 1 has been amended to more clearly define relationships between the elements of the present invention.

In preparing the above-noted amendments, careful attention was paid to ensure that no new subject matter has been introduced.

Referring now to the text of the Office Action:

- claims 1, 3, 4, 10-12 and 15 stand rejected under 35 U.S.C. § 102(b), as being unpatentable over the teaching of as being unpatentable over the teaching of United States Patent No. 6,108,113 (Fee);
- claims 5 and 6 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the teaching of United States Patent No. 6,108,113 (Fee);
- claims 7, 8, 13 and 14 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the teaching of United States Patent No. 6,108,113 (Fee) in view of United States Patent No. 6,246,707 (Yin); and
- claims 16-18 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As an initial matter, applicant appreciates the Examiner's indication of allowable subject matter in claims 16-18. The Examiners claim rejections under 35 U.S.C. §§102(b) and 103(a) are believed to be traversed by the above-noted claim amendments, and further in view of the following discussion.

Claim 1 has been amended to clarify that the present invention provides an integrated system in which the electronic cross-connect (EXC) and the photonic cross-connect (PXC)

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cooperate to perform hybrid electronic/photonic switching of traffic. Thus, claim 1 now defines that the system comprises "an electronic cross-connect (EXC) adapted to selectively map an electronic signal from a selected first one of the interfaces to a selected second one of the interfaces; and a photonic cross-connect (PXC) adapted to selectively couple respective optical signals between each selected interface and selected ones of a plurality of optical channels of the communications network." United States Patent No. 6,108,113 (Fee) does not teach or fairly suggest this feature.

More particularly, referring to FIGs. 3A-3D, Fee shows an optical link between site-A and site-C, and traversing an intermediate site-B. Each of these sites are separated by optical fiber spans (Span A-B, and Span B-C). Each of sites A and C include interfaces for transmitting and receiving optical signals through spans A-B and B-C, and a respective electronic cross connect for routing traffic between desired input and output ports. The node at Site B provides a photonic switch capable of switching traffic from one fiber on span A-B to a fiber on span B-C. It will be apparent that the optical link illustrated in FIGs. 3a-3d is a conventional "flow-through" system, in which (referring to FIG. 3d) a signal A at site A is conveyed through the link to emerge as signal A' at site C.

In contrast, as may be seen in FIG. 2 of the present application, the system of the present invention uses hybrid electronic/photonic switching to route traffic between optical channels of the network. Thus, a photonic cross connect (PXC) is coupled to the optical channels of the network, and routes optical signal traffic between the optical channels as a plurality of interfaces. An electronic cross-connect (EXC) "sits behind" the plurality of interfaces, and routes electronic signal traffic between the interfaces.

In light of the foregoing, it is respectfully submitted that the presently claimed invention is clearly distinguishable over the teaching of United States Patent No. 6,108,113 (Fee). The other known prior art fails to provide the missing teaching. Thus it is believed that the present application is in condition for allowance, and early action in that respect is courteously solicited.

If any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this response, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an

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extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 160820, Order No. 34172.

Respectfully submitted,

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